

## **A comparative study of organic acids production from kitchen wastes and simulated kitchen waste.**

### **ABSTRACT**

Simulated kitchen waste was developed in this study to overcome the problem of kitchen waste variation composition. The performance of organic acids production was compared between the simulated kitchen waste and original kitchen waste. Both substrates were subjected to anaerobic digestion by indigenous mixed microflora from fermented kitchen waste in a 250 mL shake flasks. The condition used were mixing at 200 rpm, adjusted pH 5 and 7 and temperature of 30°C, 37°C and 40°C. The highest organic acids produced in the both kitchen waste and model kitchen waste were 48.64g/L and 37.49g/L, respectively at pH 5 and 37°C. For both kitchen waste and simulated kitchen waste fermentation, lactic acid was dominant, 37g/L (76.2%) followed by acetic acid (17.7%) and butyric acid (6.1%).

**Keyword:** Kitchen waste; Model kitchen waste; Anaerobic digestion; Organic acid.